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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,004	02/28/2005	David George Stedman	10025.0157.PCUS00	6710
23369	7590	06/30/2005	EXAMINER	
HOWREY LLP C/O IP DOCKETING DEPARTMENT 2941 FAIRVIEW PARK DRIVE, SUITE 200 FALLS CHURCH, VA 22042-7195			ZUCKER, PAUL A	
			ART UNIT	PAPER NUMBER
			1621	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/511,004

Applicant(s)

STEDMAN ET AL.

Examiner

Paul A. Zucker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/12/2004</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The disclosure is objected to because of the following informalities: A section titled Brief Description of the Several Views of the Drawings is required: See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, 4, 6, 9, 12, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Peterson et al (US 6,410,783-B1 06-2002). Peterson discloses (Column 2, line 30-column 3, line 4) a process for mixing a molten carboxylic acid with a solution of an alkali metal or ammonium alkaline compound to produce a dry

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carboxylic acid salt in granular or powder form. Peterson discloses (FIG. 1. and column 6, lines 38-50) a process in which the reactants are first introduced into a mixer for a time sufficient for mixing and to allow the reaction to begin and then passed to a dryer. Peterson discloses (Column 8, line 64-50-column 9, line 3) that reaction occurs in both the mixer and the dryer. Peterson discloses (Column 6, lines 38-50) residence times in the mixer of from 1 to 10 minutes before transfer to the dryer. Peterson discloses (Column 7, lines 46-65) the use of a dryer that is agitated by a mixing means. Peterson exemplifies (Column 9, line 55- column 10, line 12) making the sodium salt of dicamba but also discloses (Column 5, lines 6-8) that his process can be used to make benzoic acid salts. Peterson discloses (Column 11, lines 23-26, claim 13) carboxylic acid salt having less than 1% water. Peterson therefore anticipates claims 1, 3, 4, 6, 9, 12, 14 and 15.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson et al (US 6,410,783-B1 06-2002) in view of Pietralla et al (US 4,294,771 10-1981).

Instantly claimed is a method of making the salt of an acid selected from  $C_1 - C_{10}$  carboxylic acids, aromatic carboxylic acids of the formula  $Ph-(CH_2)_x-CO_2H$  where  $x$  is 0-4, and glycerophosphoric acid, the method including the steps of combining and mixing the acid and a base selected from the oxides, hydroxides and carbonates of sodium, potassium, calcium and magnesium, or a mixture of any two or more thereof, in a first reaction zone, the combining and mixing step being carried out over a first period of 3 -180 seconds to produce a reaction mixture in the first reaction zone; transferring the reaction mixture at the end of the first period from the first reaction zone to a second reaction zone the transferring step being carried out over a second period; and allowing heat generated by reaction between the acid and the base in the second reaction zone to drive off sufficient water to produce a product mixture containing less than about 8% (m/m) water.

Peterson teaches (Column 2, line 30-column 3, line 4) a process for mixing a molten carboxylic acid with a solution of an alkali metal or ammonium alkaline compound to produce a dry carboxylic acid salt in granular or powder form. Peterson teaches (FIG. 1. and column 6, lines 38-50) a process in which the reactants are first introduced into a mixer for a time sufficient for mixing and to allow the reaction to

begin and then passed to a dryer. Peterson teaches (Column 8, line 64-50-column 9, line 3) that reaction occurs in both the mixer and the dryer. Peterson teaches (Column 6, lines 38-50) residence times in the mixer of from 1 to 10 minutes before transfer to the dryer. Peterson teaches (Column 7, lines 46-65) the use of a dryer that is agitated by a mixing means. Peterson exemplifies (Column 9, line 55- column 10, line 12) making the sodium salt of dicamba but also teaches (Column 5, lines 6-8) that his process can be used to make benzoic acid salts. Peterson teaches (Column 11, lines 23-26, claim 13) carboxylic acid salt having less than 1% water.

The differences between the process taught by Peterson and that instantly claimed are:

- a. The instantly claimed process employs solutions of carboxylic acid while the process of Peterson employs essentially anhydrous molten carboxylic acid;
- b. Peterson teaches (Column 9, lines 1-3) residence times in the drying section of 5-60 minutes while times of 2-60 seconds are instantly claimed;
- c. Peterson teaches (Column 5, lines 4-32) only the use of aromatic acids while the use of alkanolic acids is instantly claimed.

Pietralla, however, teaches (Abstract) a method for producing metal soaps by reacting aliphatic carboxylic acids with metal oxides, metal hydroxides and/or metal carbonates, wherein the metal soaps are directly obtained in the form of granulates without requiring an additional granulating step. Peterson exemplifies (Column 3, line 61-column 4, line 10) making a calcium soap, in the presence of 2% by weight of

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water, from C<sub>14</sub>-C<sub>20</sub> carboxylic acids and calcium hydroxide which are pre-warmed to 50°C -60°C. Thus one of ordinary skill in the art would have been motivated to modify the process of Peterson in the by using a water solution according to the teachings of Pietralla since Pietralla teaches (Column 1, lines 31-45) that a dark colored product is obtained when an anhydrous melt is employed as in the case of Peterson. In addition, the method of Pietralla allows the application of the process of Peterson to substituted carboxylic acids that do not melt at convenient temperatures.

Neither Peterson nor Pietralla teaches reduced dryer residence times. One of ordinary skill in then art, however, would naturally seek to reduce the time required for drying in order to increase the throughput and overall cost efficiency of the process. Such optimization is well within the Ambit of one of ordinary skill in the art and there would therefore have been a reasonable expectation for success.

There would also have been a reasonable expectation for success for the process of Peterson modified according to the teachings of Piralla because of the close similarity of the two processes.

Thus the instantly claimed process would have been obvious to one of ordinary skill in the art

### ***Claim Objections***

5. Claim 8 is objected to because of the following informalities: the word "sebacic" on line 3 is misspelled. Appropriate correction is required.

***Conclusion***

6. Claims 1-18 are pending. Claims 1-18 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Zucker whose telephone number is 571-272-0650. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PAULA A. ZUCKER, PH.D.  
PRIMARY EXAMINER